

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016562**Date Inspected:** 31-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Tian Lei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

BAY- 2

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 06540.

**Magnetic Particle Testing (MT)**

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Edge beam weld Components. Total number of welds MT Tested: 90 No's. The weld designations are review as follows:

1. EB3030-001-001,003~005,007,008
2. EB3031-001-001,003~005,007,008
3. EB3033-001-001~003
4. EB3034-001-001,003~005,007,008

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

5. EB3035-001-001,003~005,007,008
6. EB3036-001-001~003
7. EB3037-001-005,007,008
8. EB3038-001-001,003~005,007,008
9. EB3039-001-001,003~005,007,008
10. EB3040-001-005,007,008
11. EB3041-001-001,003~005,007,008
12. EB3042-001-005,007,008
13. EB3043-001-001,003,004
14. EB3044-001-001~003
15. EB3045-001-001,003~005,007,008
16. EB3046-001-001,003~005,007,008
17. EB3047-001-005,007,008
18. EB3048-001-001,003~005,007,008
19. EB3049-001-001,003~005,007,008

During QA MT review of welds located on OBG 13 West Edge Beam (EB) EB3041B, this QA observed Two (2) Transverse Linear Cracks measuring approximately 9 and 12 mm in length. The weld is identified as: EB3041-001-008. This weld is a fillet weld joining EB plate (X4416F) to Stiffener plate (X4416G). The “Y” locations are approximately 620 and 642 mm from the east end of the weld.

This QA Inspector generated an incident report on this date for the above issue, for further information see the incident report and the attached photos.

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) of weld joint KP3015-001-006. Welder is identified as 045240. ZPMC Quality Control (QC) is identified as Mr. Li Jia. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2232-TC-U4b-F.

FCAW of weld joint KP3016-001-001. Welder is identified as 045209. ZPMC Quality Control (QC) is identified as Mr. Li Jia. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2232-TC-U4b-F.

BAY- 3

Submerged Arc Welding (SAW) of weld joint FB3265-001-008. Welder is identified as 050502. ZPMC Quality Control (QC) is identified as Mr. Zhang zhi wei. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2221-B-L2c-S-2.

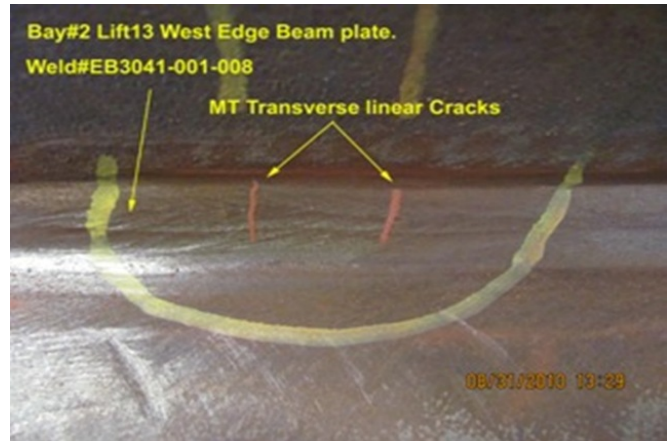
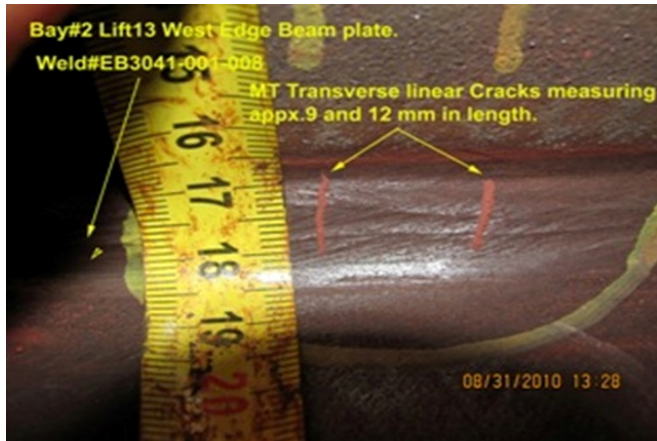
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

---

# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---



## Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

---

**Inspected By:** Prabhu,Surendra

Quality Assurance Inspector

---

**Reviewed By:** Hall,Steven

QA Reviewer